Livestock Price OUTLOOK

HOG PRODUCERS BUILD BANK ACCOUNTS

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Positive returns will be rolling toward the pork industry over the next 12 months, but the very best returns will come in the next five months through August 2005. Profits over this time period are expected to average $13 per live hundredweight. U.S. producers continue to modestly reduce the size of their breeding herds, and say they will farrow somewhat fewer sows in the next six months. This means total pork supplies will only be up about 1 percent over the next 12 months.

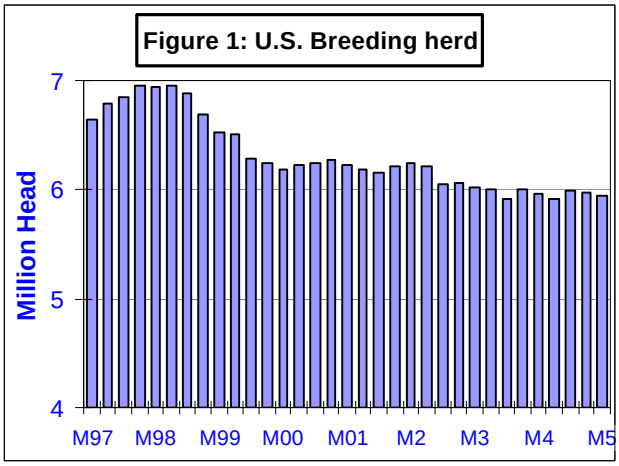
Demand remains the most positive force for strong hog prices. Demand is led by increased exports, partially as a result of the restrictions on beef exports; by continued consumer interest in meat consumption; and by narrow marketing margins.

Canada's breeding herd is continuing to expand. At the start of the year that breeding herd was up 2 percent from last year. The rate of increase is slowing however, after seeing sow numbers rise 28 percent from 1998 to 2004. Increases of about 30 percent in the value of the Canadian dollar relative to the U.S. dollar in the past three years should slow the shifting of the breeding herd toward Canada.

Hedging opportunities are expected to be excellent this spring, especially for production headed to market through September. However, at this time, lean hog futures prices for fall and winter 2006 delivery are undervalued relative to the price outlook detailed in this report. Better hedging opportunities for those time periods are expected later this spring and summer.

The Numbers

The breeding herd in the U.S. continues to drop. Currently the breeding herd is down .3 percent from last year, but the long-run trend is more dramatic. Looking back to 1998, the year of large excess production and devastatingly low hog prices, the nation's breeding herd inventory has dropped by one million animals or about 12 percent (see **Figure 1**).



Since 1998, the growth of the North American pork industry has primarily come in Canada. Canadian sow numbers have increased by 382,000 since 1998. The annual number of pigs born in Canada has increased by 10.6 million, compared to a 2.2 million drop in the U.S. Of the 10.6 million additional pigs in Canada, roughly 40 percent have been shipped to the U.S. and about

60 percent have been retained in Canada. Those retained in Canada have enabled slaughter there to increase by 6.6 million head, while U.S. slaughter has increased by only 2.6 million head during the same period.

The longer-run direction of the U.S. breeding herd is subject to question, but the direction for now is no expansion. Farrowing intentions for this spring are the same as last year and producers say they will reduce summer farrowings by 1 percent.

Two states were distinct in increasing their breeding herds. Iowa increased by 40,000 animals, or 4 percent, and Illinois increased by 20,000 animals, or 5 percent. The only other major state to increase the breeding herd was Oklahoma which was up 10,000 animals, or 3 percent. States decreasing their breeding herds were led by Texas, Pennsylvania, and Kansas each with a 15,000 head reduction, and North Carolina, Minnesota, and Indiana each with a 10,000 head reduction.

Supply Only Up 1 Percent

Pork supplies in the coming 12 month period will only be about 1 percent higher compared to the previous 12 month period. Supplies in the second and third quarter of 2005 are expected to be up about 1.4 percent, but between zero and 1 percent in late 2005 and the first quarter of 2006. Given continued population growth, this means that per capita supplies will be nearly unchanged in the coming 12 month period.

Demand factors are expected to continue to lead prices as they have for the past year. USDA expects pork exports for 2005 to be up about 5 percent, after shooting upward by 27 percent in 2004. Pork imports are expected to rise by about the same amount, so there may be no net demand gain from trade in 2005, but rather pork trade will help maintain the positive demand thrust.

Retail beef prices have started 2005 at record high levels. This is providing some substitution effect in favor of pork. The question of how extreme gasoline prices may affect pork demand is also interesting. High gasoline prices cause household budgets to tighten. In effect, this is a reduction of household income which would tend to reduce both beef and pork consumption. However, there will be a much larger impact on beef as compared to pork. In fact, the substitution effect (more pork/less beef) should be a positive factor for pork.

If cattle and beef trade are restored with Canada and Asia in 2005, these factors will be somewhat negative to pork demand. Opening the Canadian border to live animals will drop U.S. cattle and beef prices, which will cause a reduction in U.S. pork demand. Restoration of beef exports to Asia would also likely have a negative impact on pork demand as foreign countries purchase more beef from the U.S. and less pork.

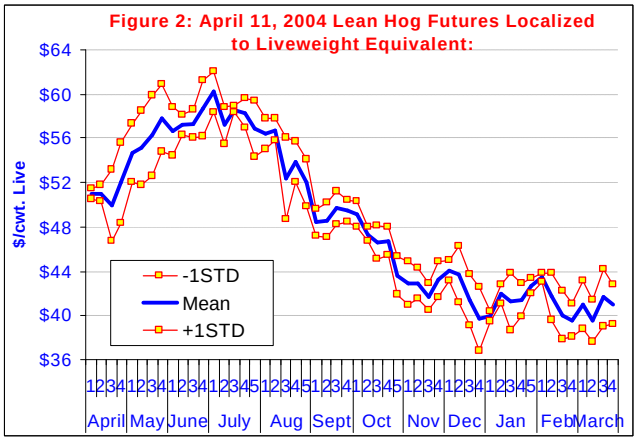
Finally, packer and retail marketing margins have recently been the narrowest in several years. Narrow marketing margins are highly correlated with strong producer prices. Marketing margins are expected to widen in the late 2005 and 2006 and be a factor that will reduce farm prices. In 2004, the benefits of narrow marketing margins contributed about $5 per live hundredweight to higher farm prices.

The price strengthening impacts of strong pork demand in 2004 are expected to weaken in the late 2005 and 2006. This means some reduction in hog prices at the producer level will be a result.

Prices to Remain Outstanding for Now

Supplies and prices are shown in Tables 4 and 5 in the appendix. Prices quoted here are for 51 to 52 percent lean hog carcasses on a liveweight basis. Second quarter 2005 prices are expected to average in the mid-$50s. If so, this means that daily price highs could approach the very high $50s in May and June. Some reduction in prices would be anticipated in the late summer, especially in late August and especially September. Third quarter prices are expected to average about $53, approximately $1.50 lower than in the second quarter.

Fall price averages are expected to be in the mid-$40s to very low-$50s with winter 2006 prices in the mid-$40s. How do current lean futures prices compare to the price predictions made in this report? **Figure 2** provides estimates of what hedging lean hog futures on April 11, 2005 would provide in terms of net prices for Midwestern producers. The solid line is an estimate of the expected price with the lines on the outside representing a range for basis uncertainty that reflects about two-thirds of the historic basis variability.



4/11/2005	LeanFutr	Live
April	68.98	51.05
June	77.93	57.67
July	78.50	58.09
Aug	75.80	56.09
Oct	64.00	47.36
Dec	60.58	44.83
Feb06	60.38	44.68
April 06	57.73	42.72

As you can see, the forecast of $54.28 for the second quarter 2005 is very close to the hedging opportunity for this quarter as of April 11 ($54.80). However, for the third quarter the forecast is $52.65 and the futures market was offering about $54.19.

Things start to vary more, however, in the final quarter of 2005 and the first quarter of 2006. The direction of this variance is for forecast prices to be higher than those offered in the futures market. Forecasts for the fourth quarter are $48.43 and the futures market is at about $44.09. The contrast is greater in the first quarter of 2006 with forecasts at $46.58 and the futures market offering about $41.17.

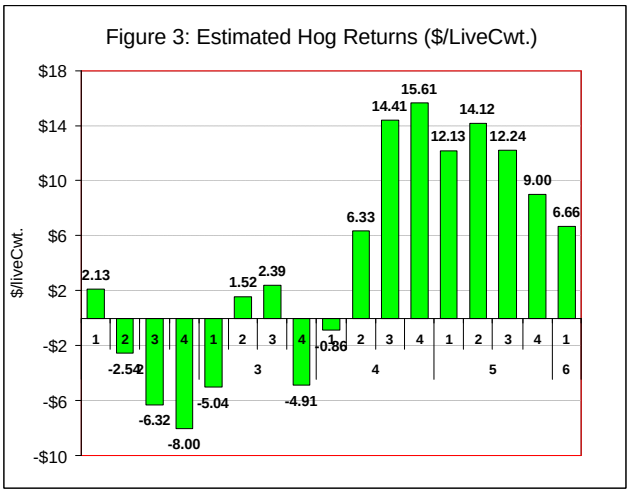
Why are futures prices lower? The greatest difference in the two may come from the futures market assumption that more expansion will be showing up in the form of increased pork supply in late 2005 and early 2006. In addition, future market participants may believe that pork demand will falter in late 2005 and 2006.

Historically, futures prices have a tendency to reach a peak in the first-half of May. Producers will want to continue to watch their forward pricing opportunities especially for summer contracts into the first-half of May. The analysis suggests that fall and winter lean hog futures are excessively discounting prices from what is known today about pork supplies and pork demand for those time periods. This means waiting for better pricing opportunities in those time periods. However, the analysis, like all others, is subject to large potential errors.

A second criterion for forward pricing is often to "price at profitable levels." Clearly summer contract pricing opportunities provide strong profit results. However, that is not the case for fall and winter contracts. For these reasons, it is suggested to continue to wait for better pricing incentives in the fall and winter time periods. Those opportunities may present themselves later this spring and summer.

Implications for the Industry

Price prospects are expected to remain high through this summer providing very favorable profits. Prices are expected to average in the mid-$50s for the spring quarter, a couple of dollars lower for the third quarter, the higher $40s in the last quarter of 2005, and in the mid-$40s in the winter. These prices with current anticipated production costs provide strong profit expectations over the next 12 months as shown in **Figure 3**.



Producers say they are going to keep farrowings unchanged this spring, and drop them nearly 1 percent this summer. If so, this means that per capita pork supplies will remain under year-previous levels for the coming 12 months. Futures prices for the fall and winter are lower than would be expected given these supplies and a continuation of strong pork demand. This implies that futures market participants believe some combination of higher supplies or weakened demand may result by this fall. Alternatively, fall and winter lean hog prices may also be undervalued at the current time, with prospects for higher hedging opportunities later this spring or summer.

The growth of the North American industry was briefly reviewed in this report. The growth since 1998 has come primarily in Canada. There are some changes that could alter this trend. One primary change has been the 25 to 30 percent increase in the exchange rate of the Canadian dollar compared to the U.S. dollar. A low valued Canadian dollar from 1998 to 2002 gave incentives to produce pigs in Canada and sell them in the U.S. Secondly, growth of the Canadian industry was partially stimulated by repeal of rail transportation subsidies for grains in the mid-1990s. Elimination of these subsidies lowered feed grain and protein prices on the Prairie Provinces. As a result, there was a strong push among grain producers and governmental agencies to help find “value-adding” businesses for grains. It has been a decade now and some evaluation of this trend is in order.

Canadian livestock industries made the strategic decision to become more heavily dependent on the export market in the past decade. Implied in this movement was the anticipation that the U.S. and Canadian industries where moving toward integration. One of the shortcomings of increased export dependency is the economic damage which can occur when exports are jeopardized as occurred with BSE in cattle. In addition, suits by NPPC over Canadian governmental subsidies paid to producers and the resulting short-term anti-dumping levy demonstrate that U.S. pork producers may not have moved as far toward integration as previously thought.

The world’s pork industry is dynamic. In an environment of globalization, increasing world trade, and increasing production efficiencies, there are three key questions for the North American industry: 1) Should sow numbers increase in North America? and where? 2) Should finishing capacity increase in North America? and where? 3) And finally, should slaughter capacity increase in North America? and where?

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Table 1. Hogs and Pigs in the United States, March 1, 2005

	2004	2005	2005 as % of 2004
	thousand head		percent
Inventory			
All hogs and pigs	59,520	59,899	100.6
Kept for breeding	5,961	5,941	99.7
Kept for market	53,558	53,957	100.7
Market hogs by weight			
Under 60 pounds	19,823	19,817	100.0
60-119	12,954	13,087	101.0
120-179	11,205	11,430	102.0
180 and over	9,578	9,624	100.5
Sows farrowing			
Dec 04 - Feb 05	2,836	2,851	100.5
March 05 - May 05[1]	2,870	2,870	100.0
June 05 -Aug 05[1]	2,905	2,880	99.1
Pigs saved per litter			
Sept 04 - Nov 04	8.93	8.96	100.3
Dec 04 - Feb 05	8.81	8.85	100.5
Pig crop			
Sept 04 - Nov 04	25,488	25,558	100.3
Dec 04 - Feb 05	25,105	25,489	101.5

[1] Intentions

Table 2. U.S. Market Hogs Weighing 60 to 179 Pounds on March 1, and Commercial Slaughter in Calendar Quarter from April through June

Years[c]	Number of Hogs 60 to 179 Pounds	April-June Commercial Slaughter	Ratio
	----------thousand head---------		
1990	19,811	20,263	102.3
1991	20,351	20,921	102.8
1992	21,645	22,202	102.6
1993	22,479	22,661	100.8
1994	22,620	22,965	101.5
1995	23,092	23,644	102.4
1996	22,075	22,201	100.6
1997	21,485	21,831	101.6
1998	23,565	23,628	100.3
1999	23,894	24,288	101.7
2000	22,961	23,105	100.6
2001	23,222	23,280	100.2
2002	24,086	24,280	100.8
2003	23,554	23,922	101.6
2004	24,159	24,737	102.4
2005	24,517	24,906	101.6[a]

[a] Projected

[b] Mean of previous three years

Table 3. U.S. Sow Farrowings and Pig Crop Compared to U.S. Commercial Slaughter (1,000 head), with 7-month Lag 1993 to 2005

Year	Sows Farrow	Pig Crop	Ratio	Year	Commercial Slaughter	Ratio
	September-November				April-June	
1993	2,982	24,003	8.05	1994	22,965	95.7
1994	2,997	24,517	8.18	1995	23,646	96.5
1995	2,815	23,479	8.34	1996	22,201	94.6
1996	2,731	23,327	8.54	1997	21,834	93.6
1997	2,939	25,494	8.67	1998	23,631	92.7
1998	2,993	25,902	8.66	1999	24,292	93.8
1999	2,844	24,973	8.78	2000	23,105	92.5
2000	2,838	25,112	8.85	2001	23,280	92.7
2001	2,889	25,492	8.82	2002	24,280	95.2
2002	2,833	25,094	8.86	2003	23,922	95.3
2003	2,856	25,488	8.93	2004	24,737	97.1
2004[a]	2,852	25,558	8.96	2005[a]	24,681	96.6
	December-February				July-September	
93/94	2,885	23,368	8.10	1994	23,673	101.3
94/95	2,886	23,851	8.27	1995	23,264	97.5
95/96	2,735	23,054	8.43	1996	22,711	98.5
96/97	2,684	23,164	8.63	1997	22,679	97.9
97/98	2,929	25,480	8.70	1998	25,038	98.3
98/99	2,891	25,247	8.73	1999	24,960	98.9
99/00	2,798	24,522	8.76	2000	24,097	98.3
00/01	2,748	23,963	8.72	2001	23,635	98.6
01/02	2,835	24,857	8.77	2002	25,120	101.1
02/03	2,769	24,400	8.81	2003	24,747	101.4
03/04	2,836	25,105	8.85	2004	25,817	102.8
04/05[a]	2,851	25,489	8.94	2005[d]	26,012	102.1
	March-May				October-December	
1993	3,220	26,135	8.12	1993	24,574	94.0
1994	3,390	27,984	8.26	1994	26,322	94.1
1995	3,170	26,373	8.32	1995	25,198	95.5
1996	2,930	24,833	8.48	1996	23,833	96.0
1997	2,911	25,229	8.67	1997	25,152	99.7
1998	3,086	26,989	8.75	1998	27,584	102.2
1999	2,986	26,272	8.80	1999	26,723	101.7
2000	2,885	25,565	8.86	2000	25,714	100.6
2001	2,870	25,509	8.89	2001	26,470	103.8
2002	2,941	26,001	8.84	2002	26,715	102.7
2003	2,886	25,629	8.88	2003	27,608	107.7
2004	2,870	25,633	8.93	2004	27,192	106.1
2005[a]	2,870	25,715	8.96	2005	27,194	105.8
	June-August				January-March	
1993	2,972	24,041	8.09	1994	22,746	94.6
1994	3,107	25,547	8.22	1995	24,229	94.8
1995	2,976	24,813	8.34	1996	23,650	95.3
1996	2,718	23,244	8.55	1997	22,342	96.1
1997	2,946	25,696	8.72	1998	24,776	96.4
1998	3,054	26,634	8.72	1999	25,579	96.0
1999	2,920	25,862	8.86	2000	25,019	96.7
2000	2,889	25,548	8.84	2001	24,578	96.2
2001	2,878	25,539	8.87	2002	24,148	94.6
2002	2,883	25,725	8.92	2003	24,654	95.8
2003	2,918	25,974	8.90	2004	25,717	99.0
2004	2,905	26,162	9.01	2005	25,642	98.0
2005[a]	2,880	26,093	9.06	2006	25,582	98.0

[a] Estimates

[b] Mean of previous three years including Canadian live imports (not shown).

Table 4. U.S. Commercial Slaughter, Carcass Weights, and Quarterly Pork Production 1992-2005

Year	Quarter	Commercial Slaughter (1,000 head)	Carcass Weight Per Hog	Pork Production (million #'s)	Percent Change Year-Ago
1992	I	23,802	181.5	4,321	10.7
	II	22,202	181.7	4,033	6.4
	III	23,746	179.6	4,264	11.6
	IV	25,138	181.7	4,567	3.0
1993	I	23,057	182.5	4,207	-2.6
	II	22,661	183.2	4,151	2.9
	III	22,777	181.7	4,138	-3.0
	IV	24,573	184.5	4,534	-0.7
1994	I	22,746	183.9	4,182	-0.6
	II	22,965	184.6	4,240	2.1
	III	23,673	182.7	4,326	4.5
	IV	26,322	186.6	4,913	8.4
1995	I	24,229	185.2	4,488	7.3
	II	23,646	185.8	4,394	3.6
	III	23,264	182.3	4,240	-2.0
	IV	25,198	186.1	4,690	-4.5
1996	I	23,650	185.6	4,389	-2.2
	II	22,201	184.9	4,104	-6.6
	III	22,711	182.4	4,143	-2.3
	IV	23,833	186.7	4,449	-5.1
1997	I	22,342	187.7	4,194	-4.4
	II	21,834	187.4	4,091	-0.3
	III	22,666	185.0	4,196	1.3
	IV	25,152	189.5	4,766	7.1
1998	I	24,776	189.2	4,688	11.8
	II	23,631	187.5	4,429	8.3
	III	25,038	184.7	4,625	10.2
	IV	27,523	188.9	5,239	9.9
1999	I	25,571	190.3	4,865	3.8
	II	24,292	190.6	4,630	4.5
	III	24,960	187.2	4,672	1.0
	IV	26,732	191.2	5,110	-2.5
2000	I	25,019	192.8	4,824	-0.8
	II	23,107	193.8	4,478	-3.3
	III	24,097	191.1	4,606	-1.4
	IV	25,714	194.8	5,010	-2.0
2001	I	24,578	195.5	4,805	-0.4
	II	23,280	195.3	4,546	1.5
	III	23,635	192.4	4,548	-1.3
	IV	26,470	197.9	5,239	4.6
2002	I	24,148	197.9	4,780	-0.5
	II	24,280	197.6	4,797	5.5
	III	25,120	192.4	4,832	6.2
	IV	26,715	196.7	5,255	0.3
2003	I	24,654	198.7	4,898	2.5
	II	23,922	198.2	4,741	-1.2
	III	24,747	194.2	4,807	-0.5
	IV	27,608	199.2	5,499	4.6
2004	I	25,717	199.5	5,130	4.7
	II	24,737	198.0	4,897	3.3
	III	25,817	195.5	5,046	5.0
	IV	27,192	199.9	5,435	-1.2
2005	I[P]	25,642	201.1	5,157	0.5
	I[ac]	24,794	200.2	4,965	1.4
	III[a]	26,012	196.7	5,116	1.4
	Iv[a]	27,194	201.5	5,480	0.8
2006	I[a]	25,582	202.2	5,172	0.3

[a] Projected

[c] Average of the two estimation methods (Table 2 and 3)

[p] Preliminary

Table 5. Actual and Forecast Hog Prices, Lean Carcass Prices, and Retail Pork Prices[a]

Year	Quarter	Barrow and Gilts 6-Mkt Price ($/cwt)	Lean Value (Live Price/74 yield) ($/carcass cwt)	Retail Pork ¢/carcass cwt
1992	I	$38.68	$52.27	198.9
	II	$44.83	$60.58	195.9
	III	$43.86	$59.27	200.6
	IV	$41.84	$56.54	197.0
1993	I	$43.96	$59.41	194.6
	II	$46.83	$63.28	194.3
	III	$47.49	$64.18	200.2
	IV	$43.23	$58.42	201.3
1994	I	$45.19	$61.07	200.8
	II	$42.44	$57.35	198.8
	III	$40.07	$54.15	199.0
	IV	$30.56	$41.30	193.6
1995	I	$38.19	$51.61	191.6
	II	$38.57	$52.12	190.2
	III	$48.32	$65.30	195.6
	IV	$42.86	$57.92	201.8
1996	I	$45.33	$61.26	206.3
	II	$54.84	$74.11	214.9
	III	$57.96	$78.32	230.4
	IV	$55.10	$74.46	231.9
1997	I	$51.06	$69.00	231.0
	II	$56.41	$76.23	229.7
	III	$54.45	$73.58	234.5
	IV	$43.69	$59.04	231.0
1998	I	$34.74	$46.95	233.0
	II	$39.42	$53.27	226.9
	III	$33.95	$45.88	231.0
	IV	$19.30	$26.08	226.9
1999	I	$28.83	$38.96	235.8
	II	$35.18	$47.54	238.4
	III	$35.70	$48.24	246.4
	IV	$36.29	$49.04	245.2
2000	I	$41.14	$55.59	249.8
	II	$50.43	$68.15	257.3
	III	$46.43	$62.74	264.3
	IV	$40.78	$55.11	261.3
2001	I	$42.83	$57.88	262.5
	II	$52.05	$70.34	267.0
	III	$51.05	$68.99	275.0
	IV	$37.30	$50.41	273.0
2002	I	$39.43	$53.28	270.9
	II	$34.99	$47.28	267.7
	III	$33.86	$45.76	264.1
	IV	$31.34	$42.35	260.2
2003	I	$35.38	$47.81	260.9
	II	$42.64	$57.62	262.2
	III	$42.90	$57.97	269.8
	IV	$36.89	$49.85	270.2
2004	I	$44.18	$59.70	269.3
	II	$54.91	$74.20	276.8
	III	$56.58	$76.46	287.7
	IV	$54.35	$73.45	282.8
2005	I[P]	$51.95	$70.20	284.1
	II[a]	$54.28	$73.35	
	III[a]	$52.65	$71.15	
	IV[a]	$48.43	$65.45	
2006	I[a]	$46.58	$62.95	

[a] Predicted prices for 2005 (I) forward are made with two equations with the results averaged.

[p] Preliminary